

- 11-pin box for DIN-rail mounting
- Bright 3-digit 10 mm LED display
- Universal input for 4 RTDs, 6 T/Cs, and 3 linear types
- Up to 2 alarm relays with pulsed output
- Auxiliary output for powering external transmitters
- Fully programmable parameters
- Keyboard adjustment controls
- RS485 serial interface available

**DESCRIPTION**

BTC7806 is designed for wide range of applications. It is equipped with a 3-digit LED display, a universal input for Pt100, Pt1000, PTC, 6 thermocouple types as well as for linear current and voltage signals from external transmitters and can have up to 2 programmable relay control/alarm outputs. BTC7806 have a built-in circuit for self-testing and self-calibration, manual measurement offset setting, and automatic software compensation of line resistance and cold junction temperature. The display-to-input correspondence (in case of linear input), decimal point position, temperature measurement unit, and offset value are also programmable. Thanks to its universal input, , serial interface, and excellent price-to-performance ratio, BTC7806 is an exceptionally widely applicable device.

**TECHNICAL SPECIFICATIONS**

**Construction** : Plug-in to 11-pin socket for DIN-rail  
**Wiring** : Screw terminals on socket  
**Housing** : Plastic  
**Isolation** : Input to supply to output  
**Indication** : LED 3-digit height 10mm

**INPUT**

**Thermocouple R,S:** 0-1000 °C  
**K** : -20-1000 °C  
**J** : -20-1000 °C  
**B** : 100-1000 °C  
**T** : -40-400 °C  
**Pt-100 3-wire** : -100 – 850 °C DIN  
**Pt-1000 3-wire** : -100 – 600° C DIN  
**PTC (1k at 25°C)** : -50 – 150.0°C  
**PTC (2k at 25°C)** : -50 – 150.0°C  
**Voltage** : 0 – 10V  
**Current** : 0-20, 4-20mA, 4-20 extern transmitter  
**Custom linear** : Specify  
**Indication** : -199 to +999  
**Scaling** : -199 to +999  
**Unit** : °C or °F programmable  
 Input, decimal point, offset fully programmable.

**OUTPUT**

(Up to 2 outputs)  
**Relay** : 250VAC 5A, NO/NC contact  
**Relay** : 10<sup>7</sup> operations  
**SSR** : 250VAC 1A  
**MOS gate** : 60V/100mA isolated  
**Extern SSR** : 5-24VDC/30mA  
**Communication** : RS485 isolated (ASCII)



**INSTALLATION**

**Supply** : 90 to 250VAC/DC or 12 to 24VAC/DC  
**Ambient temp** : -10 to +65°C, RH 0 to 85%  
**Storage temp** : -20 to +80°C  
**Mounting** : In 11-pin socket or on DIN rail  
**Protection** : IP44/IP20  
**Size** : W35 x H78 x D91mm with socket  
**Weight** : 180g

**PERFORMANCE**

**Accuracy error** : < ±0.15% FS  
**Display** : LED 3-digit, Height 10mm  
**Power consumption** : 1,5VA  
**Isolation** : Input to supply to output  
**RTD line compensation** : Automatic -10 to 80 °C  
**Cold junction compensation:** Automatic up to 2 x 25 ohm



**ORDER INFORMATION**

**BTC7806**

| SUPPLY        | OUTPUT    | INTERFACE | CUSTOM INPUT |
|---------------|-----------|-----------|--------------|
| 230VAC        | X None    | X None    | X None       |
| B 115VAC      | C Relay   | B RS485   | Z Specify    |
| C 90-250V     | D SSR     |           |              |
| Q 12-24V      | M MOS     |           |              |
| E 9/12VAC     | J Ext.SSR |           |              |
| P 12-24V none |           |           |              |
| R 24VAC       |           |           |              |